

SEQUENCE LISTING

<110> Yang, Shumin
 McCall, Catherine A.
 Weber, Eric R.

<120> CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
 ACID MOLECULES, AND USES THEREOF

<130> IM-2-C1-C1

<140> not yet assigned

<141> 2001-01-05

<150> 09/322,409

<151> 1999-05-28

<150> 60/087,306

<151> 1998-05-29

<160> 21

<170> PatentIn Ver. 2.1

<210> 1

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Primer

<400> 1

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16

<210> 2

<211> 42

<212> DNA

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<220>

<223> Description of Artificial Sequence: Synthetic
 Primer

<400> 2

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42

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caa aac ttg tct tta ata aaa gaa cac ata gag cgc caa aaa aaa agg 340
 Gln Asn Leu Ser Leu Ile Lys Glu His Ile Glu Arg Gln Lys Lys Arg
 90 95 100

tgt gca gga gaa aga tgg aga gtg aca aag ttc cta gac tac ctg caa 388
 Cys Ala Gly Glu Arg Trp Arg Val Thr Lys Phe Leu Asp Tyr Leu Gln
 105 110 115 120

gta ttt ctt ggt gta ata aac acc gag tgg aca ccg gaa agt 430
 Val Phe Leu Gly Val Ile Asn Thr Glu Trp Thr Pro Glu Ser
 125 130

tgagaacaaa ccggccttatt gtagtggaag attttgagaga agaatgggttt tttggcgaatg 490

agaatgagggg ccaaccaaca gtaggggactt aatggccagt ataactaagc ttcagagaca 550

aagtaaatat ttcagggcatc ctactacttt atcacttcac acagatgaaa tatatttgag 610

<210> 5

<211> 134

<212> PRT

<213> Canis familiaris

<400> 5

Met Arg Met Leu Leu Asn Leu Ser Leu Leu Ala Leu Gly Ala Ala Tyr
 1 5 10 15

Val Ser Ala Phe Ala Val Glu Asn Pro Met Asn Arg Leu Val Ala Glu
 20 25 30

Thr Leu Thr Leu Leu Ser Thr His Arg Thr Trp Leu Ile Gly Asp Gly
 35 40 45

Asn Leu Met Ile Pro Thr Pro Glu Asn Lys Asn His Gln Leu Cys Ile
 50 55 60

Lys Glu Val Phe Gln Gly Ile Asp Thr Leu Lys Asn Gln Thr Ala His
 65 70 75 80

Gly Glu Ala Val Asp Lys Leu Phe Gln Asn Leu Ser Leu Ile Lys Glu
 85 90 95

His Ile Glu Arg Gln Lys Lys Arg Cys Ala Gly Glu Arg Trp Arg Val
 100 105 110

Thr Lys Phe Leu Asp Tyr Leu Gln Val Phe Leu Gly Val Ile Asn Thr

115

120

125

Glu Trp Thr Pro Glu Ser
130

<210> 6

<211> 610

<212> DNA

<213> Canis familiaris

<400> 6

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catcgccaaa aaaccattct tctccaaaat cttccactac aataagccgg tttgttctca 180
actttccggg gtccactcgg tgtttattac accaagaaat acttgcaggt agtctaggaa 240
ctttgtcact ctccatcttt ctctgcaca cctttttttt tggcgctcta tgtgttcttt 300
tattaaagac aagttttgga atagtttatc cacagcctcc ccgtgggcag tttggttctt 360
caatgtgtct ataccctgaa aaacttcttt aatgcacagt tgggtgatttt tattttcagg 420
agtaggaatc atcagggttc catcgcttat cagccaagtt cgatgagtgg agagcagtgt 480
caaggtctct gccaccagtc tattcatggg attttctaca gcaaaggcag aaacataggc 540
agccccaaga gctagcaaac tcaaattcag aagcattctc atagctctga aatgttcagt 600
gtttgccttg                                     610
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<210> 7

<211> 402

<212> DNA

<213> Canis familiaris

<400> 7

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cgaacttggc tgataggcga tgggaacctg atgattccta ctctgaaaa taaaaatcac 180
caactgtgca ttaaagaagt ttttcagggg atagacacat tgaagaacca aactgcccac 240
ggggaggctg tggataaact attccaaaac ttgtctttta taaaagaaca catagagcgc 300
caaaaaaaaaa ggtgtgcagg agaaagatgg agagtgacaa agttcctaga ctacctgcaa 360
gtattttcttg gtgtaataaa caccgagtgg acaccggaaa gt                                     402
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<210> 8

<211> 402

<212> DNA

<213> Canis familiaris

<400> 8

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actttccggg gtccactcgg tgtttattac accaagaaat acttgcaggt agtctaggaa 60
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tattaaagac aagtttttga atagtattatc cacagcctcc ccgtgggcag tttggttctt 180
caatgtgtct ataccctgaa aaactttctt aatgcacagt tggtgatttt tattttcagg 240
agtaggaatc atcaggttcc catcgcttat cagccaagtt cgatgagtgg agagcagtgt 300
caagggtctct gccaccagtc tattcatggg attttctaca gcaaaggcag aaacataggc 360
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<210> 9

<211> 345

<212> DNA

<213> Canis familiaris

<220>

<221> CDS

<222> (1)..(345)

<400> 9

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  1             5             10             15

ctg ctc tcc act cat cga act tgg ctg ata ggc gat ggg aac ctg atg 96
Leu Leu Ser Thr His Arg Thr Trp Leu Ile Gly Asp Gly Asn Leu Met
          20             25             30

att cct act cct gaa aat aaa aat cac caa ctg tgc att aaa gaa gtt 144
Ile Pro Thr Pro Glu Asn Lys Asn His Gln Leu Cys Ile Lys Glu Val
          35             40             45

ttt cag ggt ata gac aca ttg aag aac caa act gcc cac ggg gag gct 192
Phe Gln Gly Ile Asp Thr Leu Lys Asn Gln Thr Ala His Gly Glu Ala
          50             55             60

gtg gat aaa cta ttc caa aac ttg tct tta ata aaa gaa cac ata gag 240
Val Asp Lys Leu Phe Gln Asn Leu Ser Leu Ile Lys Glu His Ile Glu
          65             70             75             80

cgc caa aaa aaa agg tgt gca gga gaa aga tgg aga gtg aca aag ttc 288
Arg Gln Lys Lys Arg Cys Ala Gly Glu Arg Trp Arg Val Thr Lys Phe
          85             90             95

cta gac tac ctg caa gta ttt ctt ggt gta ata aac acc gag tgg aca 336
Leu Asp Tyr Leu Gln Val Phe Leu Gly Val Ile Asn Thr Glu Trp Thr
          100             105             110

ccg gaa agt 345
Pro Glu Ser

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115

<210> 10

<211> 115

<212> PRT

<213> Canis familiaris

<400> 10

Phe Ala Val Glu Asn Pro Met Asn Arg Leu Val Ala Glu Thr Leu Thr
1 5 10 15

Leu Leu Ser Thr His Arg Thr Trp Leu Ile Gly Asp Gly Asn Leu Met
20 25 30

Ile Pro Thr Pro Glu Asn Lys Asn His Gln Leu Cys Ile Lys Glu Val
35 40 45

Phe Gln Gly Ile Asp Thr Leu Lys Asn Gln Thr Ala His Gly Glu Ala
50 55 60

Val Asp Lys Leu Phe Gln Asn Leu Ser Leu Ile Lys Glu His Ile Glu
65 70 75 80

Arg Gln Lys Lys Arg Cys Ala Gly Glu Arg Trp Arg Val Thr Lys Phe
85 90 95

Leu Asp Tyr Leu Gln Val Phe Leu Gly Val Ile Asn Thr Glu Trp Thr
100 105 110

Pro Glu Ser
115

<210> 11

<211> 345

<212> DNA

<213> Canis familiaris

<400> 11

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tattaaagac aagtttttga atagttttatc cacagcctcc ccgtgggcag tttggttctt 180
caatgtgtct ataccctgaa aaacttcttt aatgcacagt tgggtgatttt tattttcagg 240
agtaggaatc atcaggttcc catcgcctat cagccaagtt cgatgagtgg agagcagtggt 300
caaggtctct gccaccagtc tattcatggg attttctaca gcaaa 345

<210> 12
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 12
gggctcgaga aaagatttgc ttagaaaaat cccatg 36

<210> 13
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 13
cccgcggccg ctcaactttc cgggtgtccac tc 32

<210> 14
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 14
aggcaaacac tgaacatttc 20

<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 18

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agaccttgac actgctctcc actcatcgaa cttggctgat aggcgatggg gtaattttct 180
ttttgattcc tacagtcttt aaaatgcatg ggtaattggg ggtgggtggc agtttttaaa 240
gatccattat caataatgaa gtaatgagtg ttaataatat ataatgggta accatgttac 300
tcagaagaat tatattaaaa gttatgaacc ttacaatata ttaaaaatga atgttgtttc 360
ctttcttttt cagaacctga tgattcctac tcctgaaaat aaaaatgtaa gttaaattat 420
gatttgataa aatgattaca tgaatcagtt tcataattta agctataaag tatcagttaa 480
cattgggatg atttaatttt atctattttg tttttatgtg tgcggatgta aattatgtgc 540
ttatgaatat taggaatggg gttaggaatg gctctacaat attaagtaga atccattaag 600
caagtggatc aggccttttt ttgatgttgt cagttctcca tctcaaagag cctcgtgtca 660
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tctgtcgttg gctttcctca cctcaacgtt tttctgaaag tactagcaac ttgggggttat 780
attttttagaa ttatggtcag tagacatgaa aatatacagt gaagtcctat attaatagtc 840
acttccacat atttaaataa tttttaactc taatggaatc atatacatct ggagtatgtc 900
atggtcatat taaaatgtta aaaatgtgat atcattagtc taaatagaat aaaattacca 960
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aaagtctaac tttttggacc aaatttttat gccttgtttt gatgaattat attttttaaa 1260
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atctctcttg ttcttttaac agaaaagggtg tgcaggagaa agatggagag tgacaaagtt 1560
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<210> 19

<211> 1658

<212> DNA

<213> Canis familiaris

<400> 19

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ctcctgcaca ccttttctgt taaaagaaca gaggagatat tgtaggaaac tgtcaattct 180
tgtaaaaaaa aaaaaaaaaa acaggcagag tcagacaaat atacttaagt ttttgccaaa 240
tgtctttaac ttactttttg gcgctctatg tgttctttta ttaaagacaa gttttggaat 300
agtttatcca cagcctcccc gtgggcagtt tggttcttca atgtgtctat accctgaaaa 360
acttctttaa tgcacagttg gtgctaaatg aggaagattt taaaaaatat aattcatcaa 420
aacaaggcat aaaaatttgg tccaaaagtt agactttgtt ttgtggggtt tacacaagtt 480
ccttctccc aagagggttt tacttgtgtc ttttccgggt gggaaaccac cttatactaa 540
gctataatta ccataagtaa atgatgttta tataattact gagaagtgtt acaaatgata 600
taaatagaat gattaatgaa aaataaatgc ttacgaggta taatacaact gccttactga 660
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ttcaggagta ggaatcatca ggttctgaaa aagaaaggaa acaacattca tttttaatgt 1320
attgtaaggt tcataacttt taatataatt cttctgagta acatgggttac ccatttatat 1380
attattaaca ctcattactt cattattgat aatggatctt taaaaactag ccaccaccac 1440
caattaccca tgcattttta agactgtagg aatcaaaaag aaaattacc catcgcttat 1500
cagccaagtt cgatgagtgg agagcagtgt caaggtctct gccaccagtc tattcatggg 1560
atcttctaca gcaaaggcag aaacataggt agccccaaga gctagcaaac tcaaattcag 1620
aagcattgtc atagctctga aatgttcagt gtttgctt 1658

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<210> 20

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: N-terminal peptide

<400> 20

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<210> 21

<211> 671

<212> DNA

<213> Canis familiaris

<400> 21

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agaccttgac actgctctcc actcatcgaa cttggctgat aggcgatggg gtaattttct 180
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gatccattat caataatgaa gtaatgagt ttaataatat ataatgggta accatgttac 300
tcagaagaat tatattaaaa gttatgaacc ttacaatata ttaaaaatga atgttggttc 360
ctttcttttt cagaacctga tgattcctac tcctgaaaat aaaaatcacc aactgtgcat 420
taaagaagtt tttcagggtg tagacacatt gaagaaccaa actgcccacg gggaggctgt 480
ggataaacta ttccaaaact tgtctttaat aaaagaacac atagagcgcc aaaaaaaaaa 540

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